

SOT-23
BAV99 polarity

■ **FEATURES**

- Epoxy meets UL-94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Fast switching speed
- High Conductance
- Surface mount package ideally Suited for Automatic Insertion

■ **MECHANICAL DATA**

- **Package:** SOT-23
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end
- **Marking:** A7

■ **MAXIMUM RATINGS** ($T_a=25^\circ\text{C}$ Unless otherwise specified)

Item	Symbol	Unit	Value
Peak Reverse Voltage	V_{RRM}	V	100
Reverse Voltage	V_R	V	75
Forward Continuous Current@ $f>=50\text{Hz}$, Per Leg	I_F	mA	200
Non-Repetitive Peak Forward Surge Current @8.3ms, Half sine-wave, Per Leg	I_{FSM}	A	2.0
Power Dissipation	P_D	mW	350
Maximum Thermal Resistance	R_{thJA}	$^\circ\text{C}/\text{W}$	357
Operating Junction Temperature	T_J	$^\circ\text{C}$	150
Storage Temperature	T_{STG}	$^\circ\text{C}$	-55 to +150

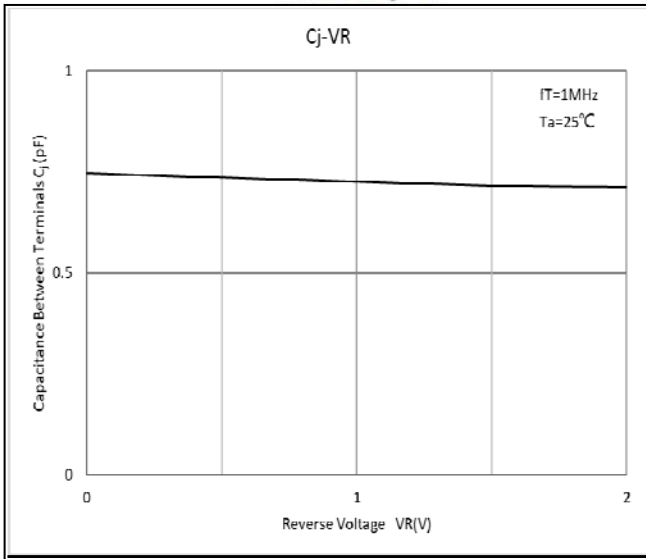
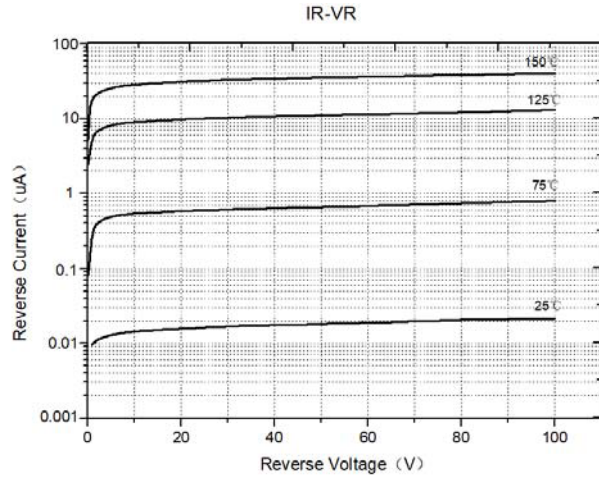
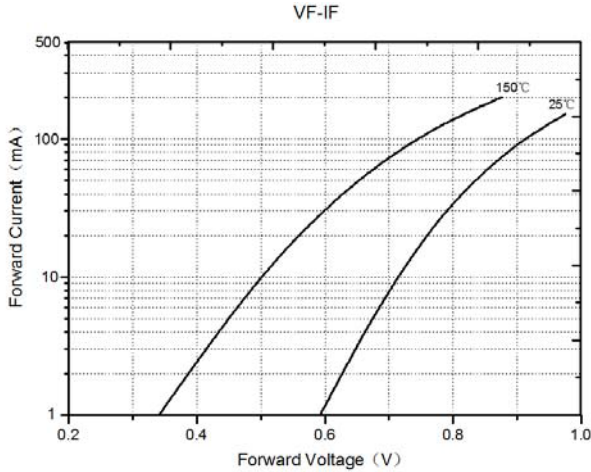
■ **ELECTRICAL CHARACTERISTICS** ($T_a=25^\circ\text{C}$ Unless otherwise specified)

Item	Symbol	Unit	Conditions	Value
Reverse Voltage	V_R	V	$I_R=100\mu\text{A}$	75
Forward Voltage	V_F	V	$I_F=1\text{mA}$	0.715
			$I_F=10\text{mA}$	0.855
			$I_F=50\text{mA}$	1.00
			$I_F=150\text{mA}$	1.25
Maximum DC Reverse Current	I_R	μA	$V_R=75\text{V}$	2.5
Typical Junction Capacitance	C_J	pF	$f=1.0\text{MHz}$, $V_R=0\text{V}$	4
Reverse Recovery Time	T_{rr}	ns	$I_F=10\text{mA}$, $V_R=6\text{V}$, $R_L=100\Omega$, $I_{rr}=1\text{mA}$	4

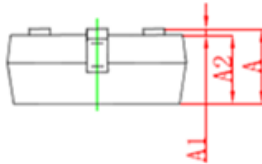
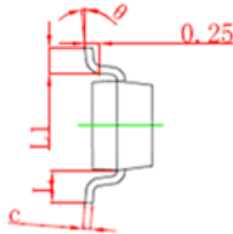
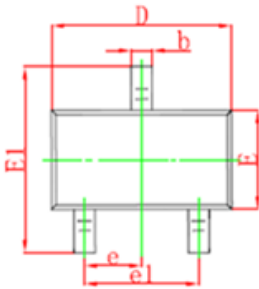
■ **PACKAGING INFORMATION**

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
BAV99	F2	Approximate 0.008	3000	30000	120000	7" reel

■ **CHARACTERISTICS (TYPICAL)**



■ SOT-23 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.100	0.200	0.004	0.008
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950TYP		0.037TYP	
e1	1.800	2.000	0.071	0.079
L	0.550REF		0.022REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°